

Application Serial No.: 09/902,340
Reply to Office Action of May 2, 2003

Patent
Attorney Docket No. CU-2592

Amendments To The Claims

(In The Revised Format)

The listing of claims presented below will replace all prior versions, and listings, of claims in the application.

Listing of claims:

1. (Currently Amended) An optical data recording medium, comprising:

a light transmittable plastic substrate; and

a recording layer formed on said plastic substrate and containing a hydrogenated amorphous material that is selected from a group consisting of hydrogenated amorphous carbon; hydrogenated amorphous silicon carbide; hydrogenated amorphous boron carbide; hydrogenated amorphous boron nitride; hydrogenated amorphous silicon; and hydrogenated amorphous germanium.

wherein said recording layer of said hydrogenated amorphous carbon decomposes and releases hydrogen at a temperature greater than 300°C, whereas said plastic substrate is softened at a temperature in a range of from 80°C to 300°C so as to permit formation of recesses in said plastic substrate as a result of the hydrogen released by said hydrogenated amorphous carbon; and

wherein said recording layer is formed on said plastic substrate via plasma assisted chemical vapor deposition techniques by decomposition of a hydrocarbon with a pressure of 20 to 400 milli-Torr and a substrate bias voltage in a range of from 250 to 550 volts.

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2. (Canceled)
3. (Canceled)
4. (Original) The optical data recording medium of Claim 1, wherein said hydrogenated amorphous material contains 5 to 60 atomic percent hydrogen.
5. (Canceled)
6. (Original) The optical data recording medium of Claim 1, wherein said recording layer has a thickness in a range of from about 30 nm to 2500 nm.
7. (Original) The optical data recording medium of Claim 1, wherein said plastic substrate is made from a resin material selected from a group consisting of acrylic resins, polycarbonate resins, epoxy resins, and polyolefin resins.
8. (Canceled)
9. (Original) The optical data recording medium of Claim 1, further comprising a reflective layer formed on said recording layer such that said optical data recording medium has a reflectivity greater than 40% in response to a wavelength of from 300 to 900 nm.
- 10-14. (Canceled)